U.S. Application No.: 10/620,412

**AMENDMENTS TO THE CLAIMS** 

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

1. (previously presented): A solution film-forming method for producing a cellulose

acylate film comprising steps of:

(a) preparing a cellulose acylate solution;

(b) filtering the cellulose acylate solution by a cake layer supported by a filtration

support, the cake layer being formed by pre-coating a filter aid to the support; and

(c) forming a film from the cellulose acylate solution obtained in step (b);

wherein said method further comprises, prior to the filtering step, a step of precoating the

filtration support in a thickness of from 0.1 to 10 mm using a precoat liquid in which the filter

aid is dispersed, wherein the filter aid has an average particle size in a range of from 1 to 150

μm.

2. (previously presented): The solution film-forming method according to claim 1,

wherein the filter aid has a composition including SiO<sub>2</sub> in 50% or more.

3. (original): The solution film-forming method according to claim 1, wherein the

filter aid is a cellulose-based aid.

4. (original): The solution film-forming method according to claim 1, wherein the

filter aid is a mixture of a cellulose-based aid and another aid including SiO<sub>2</sub> in 50% or more.

2

U.S. Application No.: 10/620,412

5. (original): The solution film-forming method according to claim 1, wherein the filter aid comprises a mixture of two or more filter aids.

6. (canceled).

- 7. (original): The solution film-forming method according to claim 1, wherein the filter aid has a standard deviation of particle size of 0.5 times an average particle size or smaller.
- 8. (original): The solution film-forming method according to claim 1, wherein the filter aid has a bulk density in a range of from 0.01 to 0.8 g/cm<sup>3</sup>.
- 9. (original): The solution film-forming method according to claim 1, wherein the filter aid is added to the cellulose acylate solution in an amount of from 0.01 to 10% by weight.
  - 10. (canceled).
- 11. (currently amended): The solution film-forming method according to claim-10\_1, wherein the precoat liquid has a terminal velocity of the filter aid in a range of from 10<sup>-4</sup> to 1 cm/s.
- 12. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out through a filtration support, the method further comprising, prior to the filtering step, a step of precoating the filtration support in a mass of from 0.1 to 5 kg/m<sup>2</sup> using a precoat liquid in which the filter aid is dispersed.
- 13. (original): The solution film-forming method according to claim 12, wherein the precoat liquid has a terminal velocity of the filter aid in a range of from 10<sup>-4</sup> to 1 cm/s.
- 14. (previously presented): The solution film-forming method according to claim 1, wherein a flow rate in the filtering step is in a range of from 0.1 to 50 cm/hr.

U.S. Application No.: 10/620,412

15. (previously presented): The solution film-forming method according to claim 1, wherein initial pressure difference in the filtering step is in a range of from 0.01 to 1 MPa.

- 16. (previously presented): The solution film-forming method according to claim 1, wherein filtration pressure in the filtering step is in a range of from 0.01 to 4 MPa.
- 17. (previously presented): The solution film-forming method according to claim 1, wherein pressure difference in the filtering step is in a range of from 0.01 to 3 MPa.
- 18. (previously presented): The solution film-forming method according to claim 1, wherein a thickness of a cake layer formed in the filtering step is in a range of from 0.1 to 80 mm.
- 19. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out in a pressure condition where the cellulose acylate solution does not boil and at a temperature 20°C lower than a boiling point of the cellulose acylate solution at normal pressure or higher.
- 20. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step comprises steps of:
- (i) dispersing the filter aid in the cellulose acylate solution at a temperature in a range of from a boiling point of the cellulose acylate solution at normal pressure to a temperature 20°C lower than the boiling point, and
- (ii) filtering the filter-aid dispersed cellulose acylate solution obtained in step (i) having a saturation of dissolved air bubble of 90% or lower.

U.S. Application No.: 10/620,412

21. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step comprises steps of:

(i) dispersing the filter aid in the cellulose acylate solution, and

(ii) filtering the filter-aid dispersed cellulose acylate solution obtained in step (i) at a

temperature lower than that of step (i).

22. (previously presented): The solution film-forming method according to claim 1,

wherein a concentration of the filter aid in the cellulose acylate solution is 10,000 particles/cm<sup>3</sup>

or less after the filtering step.

23. (previously presented): The solution film-forming method according to claim 1,

further comprising, prior to step (c), a step of post-filtering the cellulose acylate solution after the

filtering step through a filter having an absolute filtration accuracy of from 2 to 50 µm.

24. (previously presented): The solution film-forming method according to claim 1,

wherein the filtering step is carried out in a filter machine,

the method further comprising, following the filtering step, a step of backwashing the filter machine by supplying a cleaning solvent in circulation, in a pressure condition where the cleaning solvent does not boil, after being heated to a temperature 20°C lower than a boiling

point of the cellulose acylate solution or higher.

25. (original): The solution film-forming method according to claim 24, wherein the

cleaning solvent is a non-chlorine organic solvent.

26. (previously presented): The solution film-forming method according to claim 1,

wherein the filtering step is carried out through a filtration support, the method further

5

U.S. Application No.: 10/620,412

comprising, following the filtering step, a step of discharging a cake formed on the filtration support as a slurry having a concentration in a range of from 1 to 50 kg/m<sup>3</sup>.

27. (original): The solution film-forming method according to claim 26, wherein the slurry is reused as at least one of a precoat liquid and a body feed liquid.

- 28. (previously presented): The solution film-forming method according to claim 26, further comprising, following the discharging step, steps of:
  - (i) separating the discharged slurry of the cake to a solvent and the filter aid, and
  - (ii) burning the filter aid at 400°C or higher for reuse.
- 29. (previously presented): The solution film-forming method according to claim 28, further comprising, following the burning step, a step of mixing the burned filter aid with a virgin filter aid for use.
- 30. (previously presented): The solution film-forming method according to claim 1, wherein the forming step is carried out by co-casting.
- 31. (withdrawn): A cellulose acylate film prepared in the solution film-forming method according to claim 1.
- 32. (withdrawn): The cellulose acylate film according to claim 31, wherein a number of bright point defects observed under crossed-Nicol having a size of 20 μm or more is 0 defect/5 cm<sup>2</sup>, 10 μm or more is 10 defects/5 cm<sup>2</sup> or less, and 5 μm or more is 10 defects/5 cm<sup>2</sup> or less, a number being an average of five samples of 5 cm<sup>2</sup> in a width direction.

6